

VITA – Dr. Gerald Timothy Keep

President & Owner, Missing Octave Insights, Inc.,
A Consulting and Creative Services Company
www.MissingOctave.com

Summary

Experienced in cradle-to-grave commercial development of polymeric materials for specialty molding, sheet, and fiber products, but energized by any campaign to develop and commercialize new materials or their application. Seeks targeted projects in New Product Development and Innovation that require a "New Range of Perspectives" be brought to all aspects of a developing business, including fundamental understanding of principles, creative development of robust product and process design, quality assurance, troubleshooting manufacturing processes, technical literature and training, and marketing strategy, as well as coordination between all these elements.

Accomplishments

Commercialized 20 families in 10 incrementally developed generations of glass fiber reinforced THERMX PCT polyester polymers for injection molding of electronics components. This business peaked at about \$25M/yr revenue before it was sold to a Fortune 100 company.
Responsible for organizing the technology transfer of the above business after the sale.
Commercialized flame retardant masterbatches for polyester fiber and sheet products.
Commercialized a portfolio of flow and crystallization modifiers for fiber and film.
Commercialized a supertough unreinforced crystalline polyester PCTA for molding.

Work History

2004- present, Owner & President, Missing Octave Insights, Inc., consulting.
2003- present, Fiber Innovation Technology, a cutting edge specialty fiber producer, as contract Consultant brought enhanced polymer formulation technology to their bicomponent and novel cross-section fiber capabilities, now a part-time employee managing their pilot facility.
2003- 2005, Contract Consultant for a masterbatch producer, expanding and improving their line of colors and additives to include flame retardants for polyester, and enhancements in flow, crystallization, stabilization, friction reduction, dyability, anti-microbial, and other properties for films, fibers and textiles.
2002-2004, Owner, LIFE Care, Inc., a home health care organization.
1986-2003, Development Associate at Eastman Chemical Company.
Commercialized an average of \$5M/yr in Net Present Value new products.
Recognized as company expert in flammability and fiber reinforced materials.
Developed company database of polymer additives technology.
Involved in all aspects of a single business segment from its birth to its achieving and exceeding cost of capital, followed by spin-off, which allowed me to experience the varying stages of growth and development a business can go through.

Education

1986, Ph.D. in Physical Chemistry, Stanford University.
Selected as Teaching Assistant for graduate level Quantum Mechanics.
Coursework in Polymer Chemistry, Polymer Physics, Polymer Rheology, and Materials Science & Engineering.

1981, B.A. in Chemistry, University of Colorado at Boulder, Magna Cum Laude, Phi Beta Kappa.

Additional Items

Analytical skills include operation of Differential Scanning Calorimeter, Scanning Electron Microscope, Melt Flow Rheometer, Instron Tensile Testing, Dynamic Light Scattering Apparatus, Fabry-Perot Interferometer, etc.

Training in Negotiation, Meeting Leadership, Effective Presentations, Selection Interviewing, Project Management, Statistical Process Control, and more.

Electroless copper plating experience.

Experienced with ISO and practical quality system development.

Have developed five websites – www.MissingOctave.com, our subsidiary www.RememberingTogether.com, and three for other corporations.

Outside Interests

Author of two books,

"Today's Stoic, Tomorrow's Hero?" (2005) a nonfiction book about dealing with terminal illness in the family, and

"People of the Red Tide: A Young Whale's Story" (2005) a speculative fiction work about whale behaviors and their concerns, for middle-schoolers.

Game Designer.

Director of Finance, Holston Valley Unitarian Universalist Church.

Adoptive father of two boys.

At various times a Cub Scout leader, soccer coach, Master Freemason, Big Brother, international folkdancer, blood donor, craftsman, artist, and amateur musician/roadie.

Contact Information

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Publication History Includes:

Inventor or co-inventor of ten current US Patents, with others pending.

6,818,293 Stabilized polyester fibers and films.

6,277,905 Process for improving the toughness of PCT formulations by adding rubber impact modifiers.

H1,987 Non-volatile plasticizers and flow aids for polyesters.

5,965,648 Poly(alkylene ether)s as plasticizers and flow aids in poly(1,4-cyclohexanedimethylene terephthalate) resins.

5,624,987 Polyalkylene ethers as plasticizers and flow aids in poly(1,4-cyclohexanedimethylene terephthalate) resins.

4,985,293 Polymer blend for molded circuit boards and other selectively conductive molded devices.

4,978,569 Process for preparing selectively metallized articles.

4,917,761 Method of rendering polymeric materials hydrophilic for etching.

4,879,081 Process of making fused, oriented-grain polymeric materials.

4,874,809 Reinforced polyesters, article thereof and method of making low warpage articles.

2007 Fiber Society Meeting, Greenville SC, "Multi-Component Flame Retardant Systems for Polypropylene Fiber Blends."

2006 INTC 06, Houston, "Novel Additive Delivery System for Natural Fibers."

2006 TANDEC 06, Knoxville, " Developments in Flame Retardancy of Polyester Fibers."

2005 INTC St. Louis, "Flame Retardant PET for Fiber and Nonwovens."

2001 SMTA Chicago, "Thermoplastic Connector Housings in a Lead-Free Wave Soldering Environment."

1990 IICIT Symposium, "Bending the Rules with Snap-Fit Connections."

1990 Plastics Processing Society & Virginia Polytechnic Institute, "Ultimate Glass Fiber Length, Fiber Entanglement, and other aspects of Short Glass Fiber Reinforced Thermoplastics following Extrusion Compounding."

1990 UT Knoxville, "Warpage into the Third Dimension: The Search for the Elusive Factors in Development of a Low Warp Grade of Glass Fiber Reinforced PET."

1988 Macromolecules, "Dynamics of Rodlike Macromolecules in Nondilute Solutions: Poly(n-Alkyl isocyanates)."

1986 Thesis, "Concentration Effects on the Dynamics of Rodlike Poly(Alkyl Isocyanates) in Solution."

1985 Macromolecules, "Reevaluation of the Dynamic Model for Rotational Diffusion of Thin, Rigid Rods in Semidilute Solution."

Over 300 internal technical reports at Eastman Chemical Company.